

ASSIGNMENT

WHEREAS, We, Christiane Gottschalk, Jürgen Schweckendiek and Ulrich Brammer have invented one or more improvements in:

METHOD AND SYSTEM FOR CLEANING SEMICONDUCTOR ELEMENTS

described in an application (or provisional application) for Letters Patent of the United States:

☐ identified by Attorney Docket No. \_\_\_\_\_, and/or executed by us of even date herewith and about to be filed in the United States Patent Office;

☒ Serial No. 09/701,854, filed in the United States Patent Office on December 1, 2000; and

WHEREAS, Applied Science and Technology, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 90 Industrial Way, Wilmington, Massachusetts 01887, desires to acquire an interest therein, in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the inventions described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under international convention, including but not limited to continuations, divisionals, reissues, and reexaminations of said application or such Letters Patent; said inventions, applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said inventions, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE for its own name as assignee of our entire right, title and interest therein.

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including: the execution of applications for patents in foreign countries; the execution of substitution, reissue, divisional or continuation applications; and preliminary or other statements or the giving of testimony in any interference or other proceeding in which said inventions or any application or patent directed thereto may be involved; and

Joint Assignment

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we further hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on that date of our execution of this assignment;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

*IN TESTIMONY WHEREOF*, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor: C. Gottschalk  
Christiane Gottschalk

Country of Germany )  
County of ) ss

Witnessed to before me, by the above-named Christiane Gottschalk this 9<sup>th</sup> day of  
January, 2000. 1

Dankowski Offenbacher Str. 23  
14197 Berlin  
Witness Name

Inventor: Jürgen Schweckendiek  
Jürgen Schweckendiek

Country of Germany )  
County of ) ss

Witnessed to before me, by the above-named Jürgen Schweckendiek this 9<sup>th</sup> day of  
January, 2000. 1

Dankowski Offenbacher Str. 23  
14197 Berlin  
Witness Name

Inventor: Brammer  
Ulrich Brammer

Country of Germany )  
County of ) ss

Witnessed to before me, by the above-named Ulrich Brammer this 9<sup>th</sup> day of  
January, 2000. 1

Dankowski  
Witness Name



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MAY 08, 2001

PTAS

TESTA, HURWITZ & THIBEAULT, LLP  
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\*101624766A\*

MAY 14 2001

TESTA, HURWITZ & THIBEAULT, LLP

ASX-056

UNITED STATES PATENT AND TRADEMARK OFFICE  
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RECORDATION DATE: 02/15/2001

REEL/FRAME: 011543/0980  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

GOTTSCHALK, CHRISTIANE

DOC DATE: 01/09/2001

ASSIGNOR:

SCHWECKENDIEK, JURGEN

DOC DATE: 01/09/2001

ASSIGNOR:

BRAMMER, ULRICH

DOC DATE: 01/09/2001

ASSIGNEE:

APPLIED SCIENCE AND TECHNOLOGY,  
INC.  
90 INDUSTRIAL WAY  
WILMINGTON, MASSACHUSETTS 01887

SERIAL NUMBER: 09701854

FILING DATE: 02/15/2001

PATENT NUMBER:

ISSUE DATE:

**No Docketing Necessary**

TPH  
Administrator

5-15-01  
Date

**Reviewed & Approved**

                      
Resp. Atty

                      
Date

011543/0980 PAGE 2

DOROTHY RILEY, PARALEGAL  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

03-02-2001



PATENT

101624766

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## Conveying Party(ies)

☐ Mark if additional names of conveying parties attached

Name  Christiane Gottschalk

Execution Date  
Month Day Year

01/09/01

Name  Jürgen Schweckendiek

01/09/01

Name  Ulrich Brammer

01/09/01

Name

/ /

Name

/ /

## Receiving Party

☐ Mark if additional names of receiving parties attached

Name (line 1)  Applied Science and Technology, Inc.

Name (line 2)

Address (line 1)  90 Industrial Way

Address (line 2)

Address (line 3)  Wilmington

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01887

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Name Patent Administrator

Address (line 1) Testa, Hurwitz &amp; Thibault, LLP

Address (line 2) High Street Tower

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Pages Enter the total number of pages of the attached conveyance document including any attachments.

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## Application Number(s) or Patent Number(s)

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## Patent Application Number(s)

09/701,854

## Patent Number(s)

## Patent Cooperation Treaty (PCT)

Enter PCT application number  
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## Number of Properties

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1

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20-0531

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## Statement and Signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Jamie H. Rose

Name of Person Signing

Signature

Date